

TEKTELIC PELICAN

A Rugged LoRaWAN® connected BLE Asset Tracker

TEKTELIC's PELICAN is a rugged, long-life LoRaWAN® and Bluetooth® Low Energy (BLE) asset tracker designed to deliver reliable asset visibility in challenging RF and industrial environments. It combines the long-range, low-power performance of LoRaWAN® with the flexibility and ubiquity of BLE, and can operate as either a tracker or a BLE beacon to support a wide range of asset-tracking applications. Featuring an intelligent built-in state machine that increases reporting frequency when assets are in motion and reduces updates when stationary, PELICAN optimizes battery life and operational efficiency while enabling scalable, cost-effective deployments across diverse enterprise environments.



Sensing Functions



BLE
TRANSCIVER



TRACKER MODE



BEACON MODE
(100MS ADVERTISING
INTERVAL)



ACCELEROMETER



AMBIENT MCU
TEMPERATURE



MAGNETIC
HALL-EFFECT
SENSOR

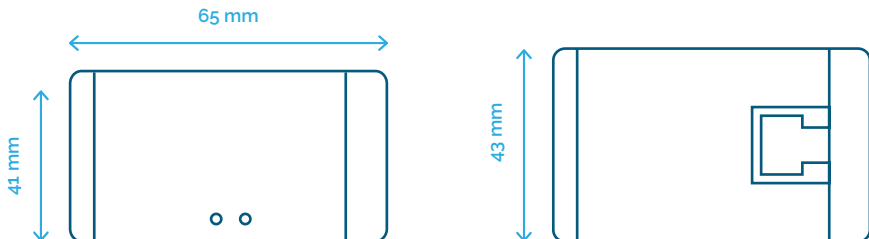


BATTERY LEVEL
INDICATOR

Features

- ✓ **16+ year battery life*** in Tracker Mode and **4.5+ year battery life*** in Beacon Mode
- ✓ **Dual-mode BLE operation** enabling **Tracker Mode** for scanning nearby devices and **Beacon Mode** for broadcasting presence
- ✓ **Intelligent state-machine reporting**, delivering higher update rates during motion and reduced reporting when stationary to optimize battery life
- ✓ **Rugged IP67-rated** enclosure designed for reliable operation in harsh indoor and outdoor environments
- ✓ **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability
- ✓ TEKTELIC **Kona Atlas™ support** for payload encoding and decoding
- ✓ TEKTELIC **Locus™ integration** for centralized device, data, and fleet management
- ✓ **Quick and easy device onboarding & data viewing** using TEKTELIC **LeapX™** mobile application
- ✓ **Sleek, unobtrusive industrial design** suited for modern indoor environments
- ✓ **Rapid deployment** for scalable commercial and enterprise installations
- ✓ **Remaining battery life reported** in days

* Actual battery life varies based on configuration, data rate, and operating temperature.



Technical and Functional System Specifications

General System Parameters		
Operational Temperature	-40°C to 70°C	
Storage Temperature	-25° to 55°C	
Operational Relative Humidity	5% - 95% Non-Condensing	
Ingress Protection	IP67	
Size	65 x 45 x 41 mm (with bracket)	
	65 x 43 x 41 mm (without bracket)	
Weight (without bracket)	120 g (63.5 g enclosure + 56.5 g battery)	
Battery	1 x C-Cell LTC	
Battery Life		
Reporting Period - 60 min @SF7 (Tracker)	17 Years	
Reporting Period - 60 min @SF10 (Tracker)	12 Years	
Reporting Period - 24 hrs @ SF10 (Beacon)	4.5 Years	
Wireless Parameters (LoRa)	LoRa	BLE
RF Power (Max)	15 dBm	0 dBm
RF Sensitivity	-137 dBm (SF12, 125 kHz)	125 kbps: -103 dBm 500 kbps: -98 dBm 2 Mbps: -91 dBm
Channel Plans	EU868, US915, AU915, AS923-1,-2,-3,-4, IN865, KR920	2.4GHz ISM
Antenna	Internal	Internal
LoRa Device Class	Class A	N/A
Specification Version	1.0.4	5.2
Sensor Specifications		
Accelerometer Sensitivity	Sample rate: 1, 10, 25, 50, 100, 200, 400 Hz Measurement range: +/-2, +/-4, +/-8, +/-16 g Precision: 16, 32, 64, 192 mg	
BLE Protocols	iBeacon, Eddystone UID, Eddystone TLM	
Default BLE Advertising Interval	100 ms	
Certifications & Compliance		
Regulatory	FCC, ISED, CE (RED)	
Product Safety	IEC 62368-1	
Environmental	RoHS	

TEKTELIC Communications is a premier supplier of complete LoRaWAN® IoT solutions. Our end-to-end systems combine network infrastructure, devices, and applications to enable easy, fast, and cost-effective deployment for the most demanding IoT challenges.

